

## ABSTRACT OF DISKLOSURE

The present invention relates to an error correction encoding method for a high-density storage medium. This method arranges sequential input data so as to form a plurality of data blocks of a predefined matrix form, the plurality of data blocks being made sequentially, appends outer parity to each column of each data block in the column direction, appends inner parity to each row of each of the outer-parity-encoded data block in the row direction, reorders rows including outer parity so as to insert them separately into the other rows including no outer parity for each of the outer- and inner-parity-encoded data blocks, and writes rows in the same order in the reordered data blocks to a storage medium sequentially on row-by-row basis.